

**REMARKS**

This is in full and timely response to the Office Action dated September 3, 2008.

Claims 1, 4-7, 10 are currently pending in this application, with claims 1 and 7 being independent.

*No new matter has been added.*

Reexamination in light of the following remarks is respectfully requested.

**Claim rejections**

Paragraph 2 of the Office Action indicates a rejection of claims 1-2, 4-5, 8 and 10 under 35 U.S.C. §103 as allegedly being unpatentable over Japanese Application Publication No. 2003-315998 (Kouchiyama'988) or International Application Publication No. WO 2005/055224 (Kouchiyama'224) in view of Japanese Application Publication No. 02-029955 (Muiru).

This rejection is traversed at least for the following reasons.

No rejection of either claim 3 or claim 7 can be found within paragraph 2 of the Office Action.

Accordingly, while not conceding the propriety of this rejection, and in order to advance the prosecution of the present application, the features of claim 3 have been wholly incorporated into claim 1 to form amended claim 1 and the features of claim 9 have been wholly incorporated into claim 7 to form amended claim 7.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Paragraph 3 of the Office Action indicates a rejection of claims 1-10 under 35 U.S.C. §103 as allegedly being unpatentable over Japanese Application Publication No. 2003-315998 (Kouchiyama'988) or International Application Publication No. WO 2005/055224 (Kouchiyama'224) in view of U.S. Patent No. 4,786,538 (Saito), U.S. Patent No. 4,916,048 (Yamada), and Japanese Application Publication No. 2001-344826 (Lee).

This rejection is traversed at least for the following reasons.

At least for the following reasons, if the allowance of the claims is not forthcoming at the very least and a new ground of rejection made against any of these claims, then a **new non-final Office Action** is respectfully requested.

**Claims 1-6** - While not conceding the propriety of this rejection, and in order to advance the prosecution of the present application, the features of claim 3 have been wholly incorporated into claim 1 to form amended claim 1 along with the cancellation of claims 2-3. Thus, prior claim 3 is now claim 1.

Claims 4-5 are dependent upon claim 1. Claim 1 is drawn to a manufacturing method of a master disc for an optical disc, comprising:

a film forming step of forming an inorganic resist layer made of an incomplete oxide of a transition metal as a film onto a substrate; and

a step of forming resist patterns including concave/convex shapes by exposing and developing said inorganic resist layer,

wherein in said film forming step, oxygen concentration of said inorganic resist layer is made different in its thickness direction,

wherein said oxygen concentration is increased toward the surface of said substrate from the surface of said inorganic resist layer.

**Claims 7-10** - While not conceding the propriety of this rejection, and in order to advance the prosecution of the present application, the features of claim 9 have been wholly incorporated into claim 7 to form amended claim 7 along with the cancellation of claims 8-9. Thus, prior claim 9 is now claim 7.

Claim 10 is dependent upon claim 7. Claim 7 is drawn to a master disc for an optical disc which is used when the optical disc having concave/convex shapes is manufactured,

wherein a substrate is coated with an inorganic resist layer in which oxygen concentration is made different in its thickness direction and which is made of an incomplete oxide of a transition metal, and the concave/convex shapes are formed in said inorganic resist layer,

wherein said oxygen concentration is increased toward the surface of said substrate from the surface of said inorganic resist layer.

**Kouchiyama'988 or Kouchiyama'224** - The Office Action concludes that Kouchiyama'988 or Kouchiyama'224 **do not teach** varying the oxygen concentration so that the concentration near the surface of the substrate is lower than the concentration at the surface of the resist (Office Action at page 6).

The Office Action further concludes that Kouchiyama'988 or Kouchiyama'224 **do not teach** the formation of concave/convex structures of different depths (Office Action at page 6).

**Saito** - Saito arguably teaches that the heat treatment (annealing) applied to the TeO<sub>x</sub> film formed in accordance with the above-described film forming method is effective to further stabilize the film construction and can be used also in the present invention (Saito at column 3, line 66 to column 3, line 2).

These objects of the present invention are accomplished by an optical recording medium in which by a metal tellurium vapor passing through oxygen gas and/or inert gas formed into a

plasma by a high frequency electric power, (a) a tellurium or tellurium suboxide ( $\text{TeO}_x$ ,  $0 \leq x < 2$ ) layer and or (b) a tellurium dioxide ( $\text{TeO}_2$ ) layer are laminated, or (a) a tellurium dioxide ( $\text{TeO}_2$ ), (b) tellurium and/or a tellurium suboxide ( $\text{TeO}_x$ ,  $0 \leq x < 2$ ) and (c) a tellurium dioxide ( $\text{TeO}_2$ ) layers are laminated (Saito at column 2, lines 28-41).

However, the present claims include an incomplete oxide of a transition metal.

In this regard, the Office Action fails to show tellurium as being a transition metal.

Saito arguably teaches that it is further possible to incorporate a material having a great laser absorptivity such as Sb, Mo, Ge, Se, Bi, In, Sn etc. in the  $\text{TeO}_x$  film (Saito at column 4, lines 7-9).

Nevertheless, Saito fails to disclose, teach, or suggest an incomplete oxide of a transition metal.

In this regard, the Office Action fails to show that tellurium and a transition metal are one in the same. Here, a review of any periodic table may reveal tellurium as being something other than a transition metal.

As a result, the Office Action fails to show why the skilled artisan would have referred to Saito for the features that are admittedly absent from within Kouchiyama'988 and Kouchiyama'224.

Yamada - Yamada arguably teaches that this photosensitive layer 12 comprises a first element selected from a group of metals or semimetals, a second element of at least one, which is different from the first element, selected from the group of Te, Ge, Sn, Al, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ga, Mo, Rh, Pd, Ag, Cd, In, Ta, W, Pt, Au, Tl, Pb, Si, Sb, Bi, and an oxygen element, wherein at least part of the oxygen element is bonded with the first element to form its oxide, and the ratio  $x$  of the total number of atoms of the oxygen element to that of first element, assuming the

maximum valence of the first element in a stable oxide state to be  $n$ , satisfies the relation of  $0 < x < n/2$  (Yamada at column 4, line 59 to column 5, line 2).

In the various embodiments, said first element is one selected from the group of Te, Sb, Bi, Si, Ge, Sn, Pb, In, Tl, Mo and W (Yamada at column 2, lines 56-58).

However, Yamada fails to disclose, teach, or suggest an incomplete oxide of a transition metal.

The Office Action seems to conclude that the oxygen content in an oxide of tellurium and an oxide of either tungsten or molybdenum would likely produce the same results (Office Action at page 7).

However, this contention appears to be conclusory at best since the Office Action fails to show that tellurium and a transition metal are one in the same. Instead, a review of any periodic table may reveal tellurium as being something other than a transition metal.

As a result, the Office Action fails to show why the skilled artisan would have referred to Yamada for the features that are admittedly absent from within Kouchiyama'988 and Kouchiyama'224.

Lee - Lee fails to disclose, teach, or suggest an incomplete oxide of a transition metal.

As a result, the Office Action fails to show why the skilled artisan would have referred to Lee for the features that are admittedly absent from within Kouchiyama'988 and Kouchiyama'224.

*Thus, Kouchiyama'988, Kouchiyama'224, Saito, Yamada, and Lee, either individually or as a whole, fail to disclose, teach, or suggest an inorganic resist layer in which oxygen concentration is made different in its thickness direction and which is made of an incomplete oxide of a transition metal.*

Withdrawal of the rejections and allowance of the claims is respectfully requested.

**Official Notice**

There is no concession as to the veracity of Official Notice, if taken in any Office Action. An affidavit or document should be provided in support of any Official Notice taken. 37 CFR 1.104(d)(2), MPEP § 2144.03. See also, *Ex parte Natale*, 11 USPQ2d 1222, 1227-1228 (Bd. Pat. App. & Int. 1989)(failure to provide any objective evidence to support the challenged use of Official Notice constitutes clear and reversible error).

**Extensions of time**

Please treat any concurrent or future reply, requiring a petition for an extension of time under 37 C.F.R. §1.136, as incorporating a petition for extension of time for the appropriate length of time.

**Fees**

The Commissioner is hereby authorized to charge any deficiency in fees filed, asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm).

The Commissioner is hereby authorized to charge all required fees, fees under 37 C.F.R. §1.17, or all required extension of time fees.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

### Conclusion

This response is believed to be a complete response to the Office Action.

Applicants reserve the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance.

Accordingly, favorable reexamination and reconsideration of the application in light of the remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753.

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Respectfully submitted,

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